

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A video storage and display system, comprising:
one or more [a plurality of] video cameras, each outputting a signal representative of a video image;

means to receive the signals from each camera and digitally compress the images;

two forms of high-capacity storage media, one being randomly searchable while the other continues to store the digitally compressed image; and

a computer configured to receive the digitally compressed images, the computer being interfaced to the following devices:

 a display screen,

 means to receive externally derived operator commands, and

 the high-capacity storage media, and wherein the computer is programmed to perform the following functions:

 display the digitally compressed images from the cameras in different windows on the display screen, each window being associated with an update rate and dimensions in pixels,

 vary the dimensions and the rate at which a particular image is updated in its window in accordance with one of the externally derived commands,

 store the digitally compressed images in the high-capacity storage medium, and

 vary the dimensions and the rate at which a particular image is stored in accordance with one of the externally derived commands.

2. (Original) The video storage and display system of claim 1, further including means associated with the computer for controlling the operation of one or more of the video cameras.

3. (Original) The video storage and display system of claim 1, wherein the means to digitally compress the image from a particular camera is disposed at the location of the camera.

4. (Original) The video storage and display system of claim 1, wherein the means to digitally compress the image from a particular camera is disposed at the location of the computer.

5. (Original) The video storage and display system of claim 1, further including a separate computer associated with each camera, the computers being networked together over a common communication bus, enabling an operator situated at a particular computer to display the images gathered by other cameras in separate windows on that operator's display screen.

6. (Previously Presented) The video storage and display system of claim 1, wherein one or both of the high-capacity storage [medium] media comprises a magnetic tape.

7. (Previously Presented) The video storage and display system of claim 1, wherein one or both of the high-capacity storage [medium] media comprises a magnetic disk.

8. (Amended) The method of simultaneously displaying and storing multiple video images, comprising the steps of:

receiving video images at a personal computer based system, from [a plurality of] one or more sources;

digitizing [one or more] any of the images [if] not already in digital form using an analog-to-digital converter;

displaying at least certain of the digitized images in separate windows on a personal computer based display device, using a first, predetermined frame rate and resolution associated with each window; [and]

[simultaneously storing the displayed images] converting one or more of the video source images into a data storage format, using a second, predetermined frame rate and resolution associated with each image, and simultaneously storing the converted images in a memory device.

9. (Original) The method of claim 8, further including the step of receiving a command to set the frame rate and resolution associated with the display and storage of a particular image.

10. (Original) The method of claim 9, wherein the command is based upon an operator input.

11. (Original) The method of claim 9, wherein the command is based upon an external stimulus.

12. (Twice amended) The method of simultaneously displaying and storing multiple video images, comprising the steps of:

receiving video images at a personal computer based system from [a plurality of] one or more sources;

digitizing [one or more] any of the images [if] not already in digital form in an analog-to-digital converter;

displaying at least certain of the digitized images in separate windows on a personal computer based display device, using a first set of temporal and spatial parameters associated with each image in each window; [and]

[simultaneously storing the displayed images] converting one or more of the video source images into a data storage format using a second set of temporal and spatial parameters associated with each image; and

simultaneously storing the converted images in a memory device.

13. (Original) The method of claim 12, the temporal parameters including frame rate.

14. (Original) The method of claim 12, the spatial parameters including image dimension in pixels.

15. (Previously Presented) A video storage and display system, comprising:

[a plurality of] one or more video cameras, each outputting a signal representative of a video image;

means to receive the signals from each camera and digitally compress the images; and
a computer configured to receive the digitally compressed images, the computer being
interfaced to the following devices:

a display screen,

means to receive externally derived operator commands including means for
sensing a deviation from the normal-state image scene associated with at least one of the
video cameras, the existence of the deviation being used as the basis for generating an
externally derived command, and

a high-capacity storage medium, and programmed to perform the following
functions:

display the digitally compressed images from the cameras in different
windows on the display screen, each window being associated with an update rate
and dimensions in pixels,

vary the dimensions and the rate at which a particular image is updated in
its window in accordance with one of the externally derived commands,

store the digitally compressed images in the high-capacity storage
medium, and

vary the dimensions and the rate at which a particular image is stored in
accordance with one of the externally derived commands.

17. (New) A video storage system, comprising:

one or more video sources, each outputting a signal representative of a video image;

means to receive the signals from each source and digitally compress the images;

two forms of a high-capacity video storage media; and

a computer interfaced to the following devices:

an input to receive externally derived operator commands, and

the high-capacity storage media, and

wherein the computer is programmed to perform the following functions:

store the digitally compressed images in the high-capacity storage media, and

vary the dimensions and the rate at which a particular image is stored in

accordance with one of the externally derived commands.

18. (New) The video storage system of claim 17, wherein the high-capacity storage media include one being randomly searchable, and with the other being serially searchable.

19-24 (New/Canceled)

25. (New) The system for simultaneously displaying and storing multiple video images, comprising:

an input for receiving video images from one or more of sources;

digitization circuitry for digitizing one or more of the images if not already in digital form;

a display device operative to display at least certain of the digitized images in separate windows using a first, predetermined frame rate and resolution associated with each window; and

a memory for simultaneously storing the displayed images using a second, predetermined frame rate and resolution associated with each image.

26. (New) The system of claim 25, further including an input for receiving a command to set the frame rate and resolution associated with the display and storage of a particular image.

27. (New) The system of claim 26, wherein the input is an operator input.

28. (New) The system of claim 26, wherein the input is derived through an external stimulus.

29. (New) A system for simultaneously displaying and storing multiple video images, comprising:

an input for receiving video images from one or more of sources;
digitization circuitry for digitizing one or more of the images if not already in digital form;

a display device operative to display at least certain of the digitized images in separate windows using a first set of temporal and spatial parameters associated with each image in each window; and

a memory for simultaneously storing the displayed images using a second set of temporal and spatial parameters associated with each image.

30. (New) The system of claim 29, wherein the temporal parameters include frame rate.

31. (New) The system of claim 29, wherein the spatial parameters include image dimension in pixels.

32. (New) The video storage and display system of claim 15, further including a device for remotely controlling the operation of one or more of the video cameras.

33. (New) The video storage and display system of claim 1, wherein one or more video images or camera control signals are received through a network connection.

34. (New) The method of claim 8, wherein one or more video images or camera control signals are received through a network connection.

35. (New) The method of claim 12, wherein one or more video images or camera control signals are received through a network connection.

36. (New) The video storage and display system of claim 15, wherein one or more video images or camera control signals are received through a network connection.

37. (New/Canceled)

38. (New) The video storage system of claim 17, wherein one or more video images is received through a network connection.

39-40 (New/Canceled)

41. (New) The system of claim 25, wherein one or more video images is received through a network connection.

42. (New) The system of claim 29, wherein one or more video signals is received through a network connection.

43. (New) The video storage and display system of claim 1, wherein one or more of the high-capacity storage media includes a removable or permanent magnetic, magneto-optical, optical or semiconductor device.

44. (New) The method of claim 8, wherein the high-capacity storage media includes a removable or permanent magnetic, magneto-optical, optical or semiconductor device.

45. (New) The method of claim 12, wherein the high-capacity storage media includes a removable or permanent magnetic, magneto-optical, optical or semiconductor device.

46. (New) The video storage and display system of claim 15, wherein the high-capacity storage media includes a removable or permanent magnetic, magneto-optical, optical or semiconductor device.

47. (New) The video storage system of claim 17, wherein the high-capacity storage media includes a removable or permanent magnetic, magneto-optical, optical or semiconductor device.

48. (New/Canceled)

49. (New) The system of claim 25, wherein the high-capacity storage media includes a removable or permanent magnetic, magneto-optical, optical or semiconductor device.

50. (New) The system of claim 29, wherein the high-capacity storage media includes a removable or permanent magnetic, magneto-optical, optical or semiconductor device.

51. (New) The video storage and display system of claim 15, further including a memory for storing the sensed deviation information in conjunction with the image data.

52. (New) The video storage and display system of claim 5, wherein the separate computers are configured to display a subset of camera images which possess a particular common characteristic.

53. (New) The video storage and display system of claim 1, wherein one or both of the high-capacity storage media comprises a recordable optical disc.

54. (New) The video storage and display system of claim 1, wherein one or both of the high-capacity storage media comprises a recordable magneto-optical disc.

55. (New) The method of claim 8, including a display device associated with each source and a communication capability enabling an operator situated at the display for one source to view images, in separate windows, gathered by one or more different sources.

56. (New) The method of claim 12, including a display device associated with each source and a communication capability enabling an operator situated at the display for one source to view images, in separate windows, gathered by one or more different source.

57. (New) The video storage and display system of claim 15, further including:
a computer and display device associated with each video camera; and
a communication capability enabling an operator situated at the display device associated with one camera to view images, in separate windows, gathered by one or more different cameras.

58. (New/Canceled)

59. (New/Canceled)

60. (New) The system of claim 25, further including:

a computer and display device associated with each video source; and

a communication capability enabling an operator situated at the display device associated with one source to view images, in separate windows, gathered by one or more different sources.

61. (New) The system of claim 29, further including:

a computer and display device associated with each video source; and

a communication capability enabling an operator situated at the display device associated with one source to view images, in separate windows, gathered by one or more different sources.

62. (New) A digital video recording and monitoring system configured for use with a display device, comprising:

an input for receiving video material having an image size and a frame rate;

circuitry for digitally compressing the video material;

a first video storage medium which is randomly addressable;

a second video storage medium which is serially addressable;

an output for delivering the video material to the display device;

a user control; and

processing hardware or software operative to perform the following functions under user control:

- a) store the digitally compressed video material in one or both of the first and second video storage media, and
- b) output the video material for monitoring to the display device.

63. (New) The digital video recording and monitoring system of claim 62, wherein the processing circuitry is operative to simultaneously store the digitally compressed video material in the first and second video storage media.

64. (New) The digital video recording and monitoring system of claim 62, wherein the first video storage medium is a disk.

65. (New) The digital video recording and monitoring system of claim 62, wherein the second video storage medium is a tape.

66. (New) The digital video recording and monitoring system of claim 62, wherein the processing circuitry further permits searching of the video material on the first storage medium while continuing to store the material on the second storage medium.

67. (New) The digital video recording and monitoring system of claim 62, wherein the image size or frame rate of the video material in the first or second storage medium are different from the image size or frame rate of the video material delivered to the display device.

68. (New) The digital video recording and monitoring system of claim 62, further including one or more video cameras interfaced to the input.

69. (New) The digital video recording and monitoring system of claim 62, further including:

a plurality of video cameras interfaced to the input; and
the video material from different cameras is visible in different windows on the display device.

70. (New) A digital video recording and monitoring system configured for use with a display device, comprising:

an input for receiving video material from at least one video camera, the video material being characterized in having an image size and a frame rate;

hardware or software for digitally compressing the video material;

a randomly addressable video disk unit;

a serially addressable video tape unit;

an output for delivering the video material to the display device;

a user control; and

hardware or software operative to perform the following functions under user control:

a) store the digitally compressed video material in the video disk unit, the video tape unit, or both, and

b) output the video material for monitoring to the display device.

71. (New) The digital video recording and monitoring system of claim 70, wherein the processing circuitry is operative to simultaneously store the digitally compressed video material in the video disk and video tape units.

72. (New) The digital video recording and monitoring system of claim 70, wherein the processing circuitry further permits searching of the video material on the video disk while continuing to store the material on the video tape.

73. (New) The digital video recording and monitoring system of claim 70, wherein the image size or frame rate of the video material stored on the tape or disk are different from the image size or frame rate of the video material output to the display device.

74. (New) The digital video recording and monitoring system of claim 70, further including:

a plurality of video cameras interfaced to the input; and
the video material from different cameras is visible in different windows on the display device.

75. (New) The method of claim 8 whereby the displayed image and the stored image are at the same frame rate and resolution.

76. (New) The method of claim 12 whereby the displayed image and the stored image are at the same temporal and spatial parameters.